

REMARKS

This application has been carefully reviewed in light of the Office Action dated June 5, 2006. Claims 41 to 59 are now pending in the application, with Claims 1 to 17 and 37 to 40 having been canceled. Claims 41 and 54 are the independent claims herein. Reconsideration and further examination are respectfully requested.

Claims 1 to 11, 13 to 15, 17 and 37 to 40 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,963,784 (Gibbs), and Claims 12 and 16 were rejected under 35 U.S.C. §103(a) over Gibbs in view of U.S. Patent No. 6,779,004 (Zintel). Reconsideration and withdrawal of the rejections are respectfully requested.

The present invention generally concerns establishing communications links between a first device and a second device forming a current chain of devices each having an associated profile. According to the invention, an input/output profile match between all successive pairs of devices in the current chain of devices is determining. If a match between all the successive pairs of devices in the current chain of devices is not found, at least one additional device is interposed in the communication to form a second chain of devices. If a match is not found between all the successive pairs of devices in the second chain of devices, the second chain is designated as the current chain of devices, and an attempt to establish the communication is repeated. If the profile match between all the successive pairs of devices in the current chain of devices is found, the communication between the first device and the second device is established without interposing the at least one additional device. Thus, the devices themselves (i.e., either the first or second device) automatically and iteratively interpose additional devices in the chain as needed in order to establish the communication with the other device.

With specific reference to the claims, newly-added Claim 41 is directed to a method of establishing communication via a network between a first device and a second device, the first device and the second device forming a current chain of devices each

having an associated profile, the method comprising a determining step of determining an input/output profile match between all successive pairs of devices in the current chain of devices, a first establishing step of establishing, if the input/output profile match between all the successive pairs of devices in the current chain of devices is not found, the communication between the first device and the second device by interposing at least one additional device, the interposing forming a second chain of devices including the devices in the current chain of devices and the at least one additional device, wherein the first establishing step is performed by at least one of the devices in the current chain of devices, if an input/output profile match is not found between all the successive pairs of devices in the second chain of devices which comprises the devices in the current chain of devices and the at least one additional device, designating the second chain of devices which comprises the devices in the current chain of devices and the at least one additional device as the current chain of devices, and repeating the first establishing step, and a second establishing step of establishing, if the input/output profile match between all the successive pairs of devices in the current chain of devices is found, the communication between the first device and the second device without interposing the at least one additional device, wherein the second establishing step is performed by at least one of the devices in the current chain of devices.

Claim 54 is an apparatus claim that substantially corresponds to Claim 41.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of the invention, and in particular, is not seen to disclose or to suggest at least the features of a first establishing step of establishing, if an input/output profile match between all successive pairs of devices in a current chain of devices is not found, communication between a first device and a second device by interposing at least one additional device, the interposing forming a second chain of devices including the devices in the current chain of devices and the at least one additional

device, wherein the first establishing step is performed by at least one of the devices in the current chain of devices, if an input/output profile match is not found between all the successive pairs of devices in the second chain of devices which comprises the devices in the current chain of devices and the at least one additional device, designating the second chain of devices which comprises the devices in the current chain of devices and the at least one additional device as the current chain of devices, and repeating the first establishing step.

Gibbs is merely seen to disclose an architecture for a home audio-visual network in which a computer uses software to act as a proxy for controlling a new device added to the home network. According to the patent, a virtual device control module is provided for interfacing with a target device. A DCM (device control module) is operable for interfacing with the target device, wherein the DCM includes a first FCM (function control module) and a second FCM operable for controlling respective first and second functional components of the target device. Thus, Gibbs performs a centralized approach to controlling various AV devices connected to the home network. In contrast, the present invention utilizes a decentralized approach in which any one or more of the devices performs the processes to establish communication. Specifically, as claimed, the invention performs the processes of, by either the first device or the second device that communicate with one another, a first establishing step of establishing, if an input/output profile match between all successive pairs of devices in a current chain of devices is not found, communication between a first device and a second device by interposing at least one additional device, the interposing forming a second chain of devices including the devices in the current chain of devices and the at least one additional device, wherein the first establishing step is performed by at least one of the devices in the current chain of devices, if an input/output profile match is not found between all the successive pairs of devices in the second chain of devices which comprises the devices in the current chain of devices

and the at least one additional device, designating the second chain of devices which comprises the devices in the current chain of devices and the at least one additional device as the current chain of devices, and repeating the first establishing step. The foregoing features are simply not taught by Gibbs.

Zintel is not seen to disclose or to suggest anything to overcome the foregoing deficiencies of Gibbs. In this regard, Zintel is merely seen to disclose a process for installing or configuring an adapter (UPnP bridge) to provide the ability for a device operating in a host-peripheral protocol to be able to communicate with devices operating on a peer networking protocol. However, Zintel is not seen to disclose or to suggest anything that, when combined with Gibbs, would have resulted in at least the feature of a first establishing step of establishing, if an input/output profile match between all successive pairs of devices in a current chain of devices is not found, communication between a first device and a second device by interposing at least one additional device, the interposing forming a second chain of devices including the devices in the current chain of devices and the at least one additional device, wherein the first establishing step is performed by at least one of the devices in the current chain of devices, if an input/output profile match is not found between all the successive pairs of devices in the second chain of devices which comprises the devices in the current chain of devices and the at least one additional device, designating the second chain of devices which comprises the devices in the current chain of devices and the at least one additional device as the current chain of devices, and repeating the first establishing step.

In view of the foregoing deficiencies of the applied art, Claims 41 and 54, as well as the claims dependent therefrom, are believed to be allowable.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office by telephone at (714) 540-8700. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

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